FEPW (FedExec Planner's Workbook) Editor

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Federation Execution Planning Workbook (FEPW)

FEPW is a set of tables for specifying the configuration and run-time characteristics of a federation execution

- information needed for pre-execution planning
- specifies the performance characteristics of a federation execution

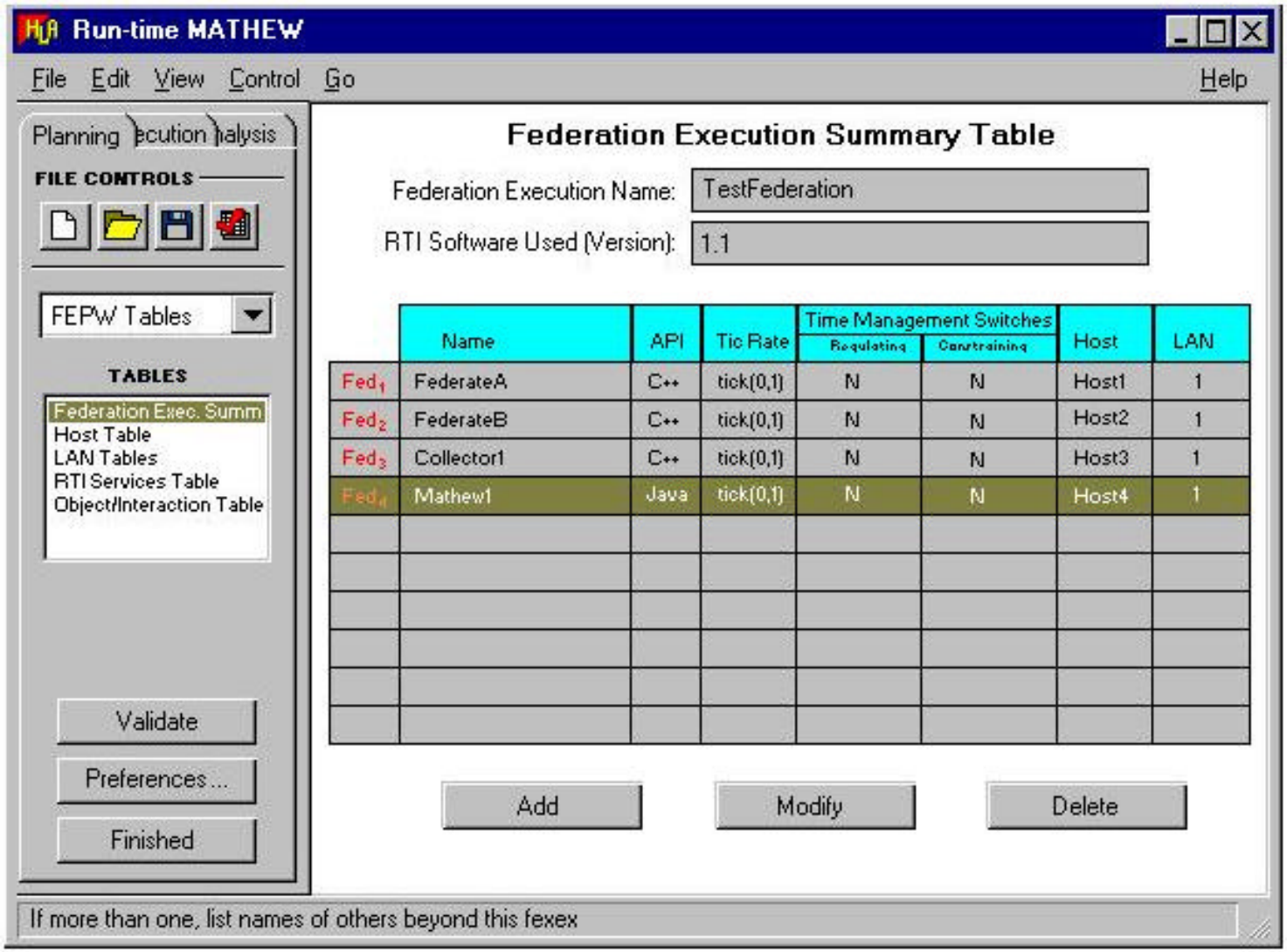
- Tables:
  - Summary Tables
  - Host Table
  - LAN Tables
  - RTI Services Tables
  - Object/Interaction Tables
  - Cross-Reference Tables
  - Data Representation Tables

Federation Execution Summary Table

Defines at a high level the composition of a federation execution

- Use: describe execution details of federation
  - federation execution name
  - member federate information
    - name
    - API used
    - tick information (rate, min, max)
    - time management info (regulating, constrained, lookahed values)
    - host and LAN federate is executing on
  - version of RTI software
  - number and name of concurrent federation executions

FedExec Summary Table GUI

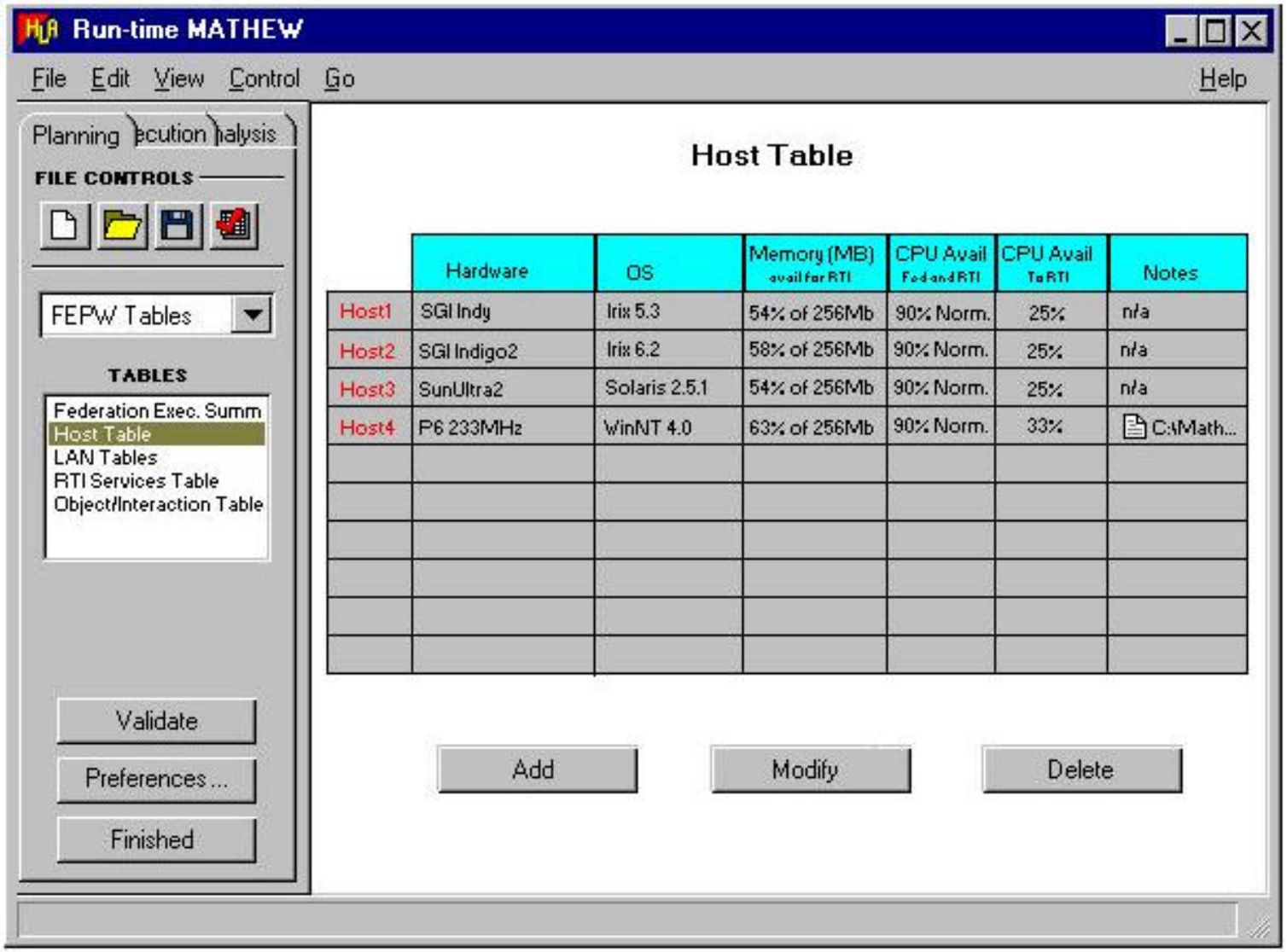


Host Table

Provides details about hardware that affect performance of the federate and RTI

- Use: describe for each host the following information
  - hardware
    - system type and OS
    - number of CPUs
    - CPU speed
  - operating system
  - total memory and free memory available
  - % of CPU available to RTI
  -
  -

Host Table GUI

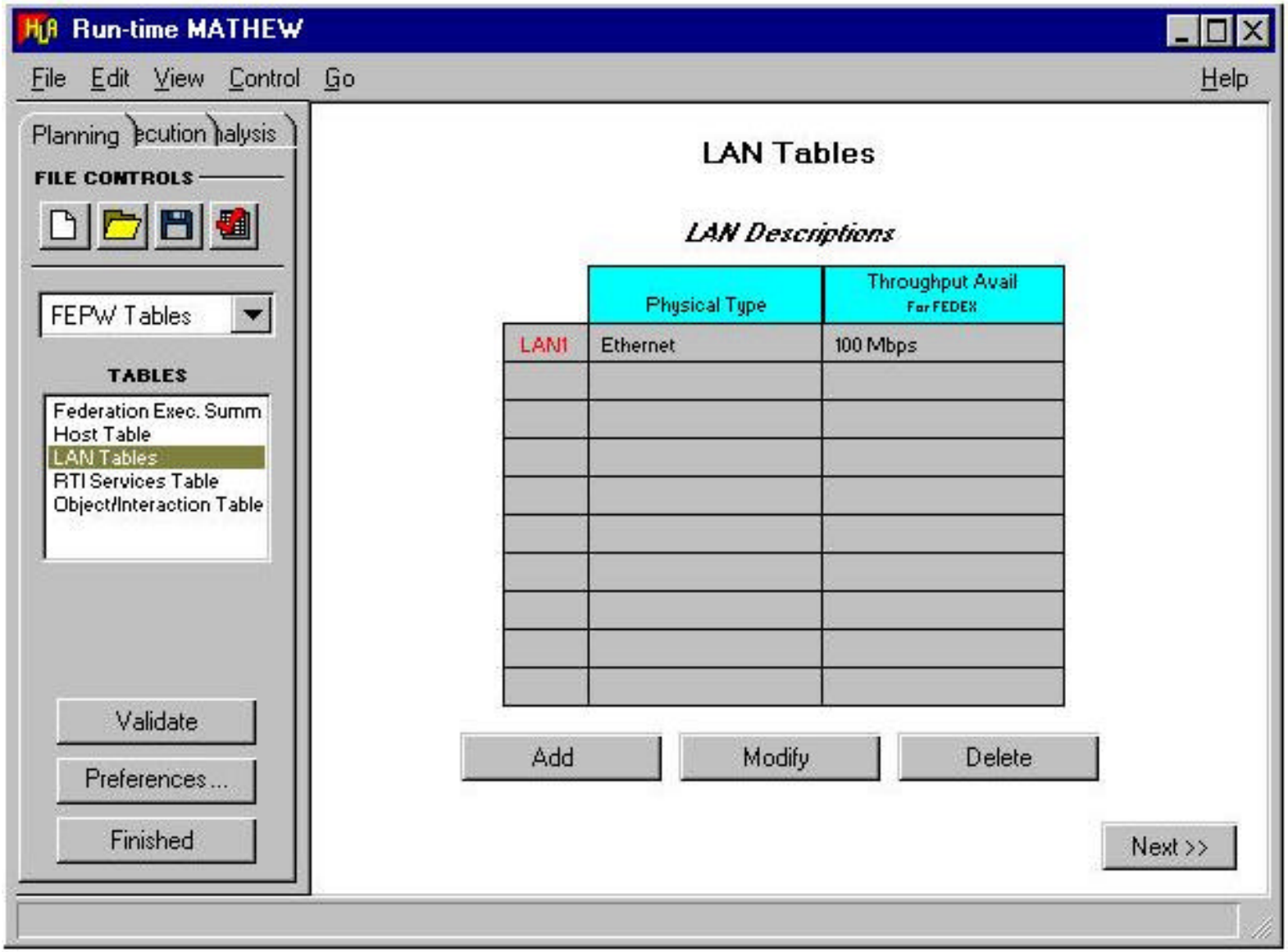


LAN Table

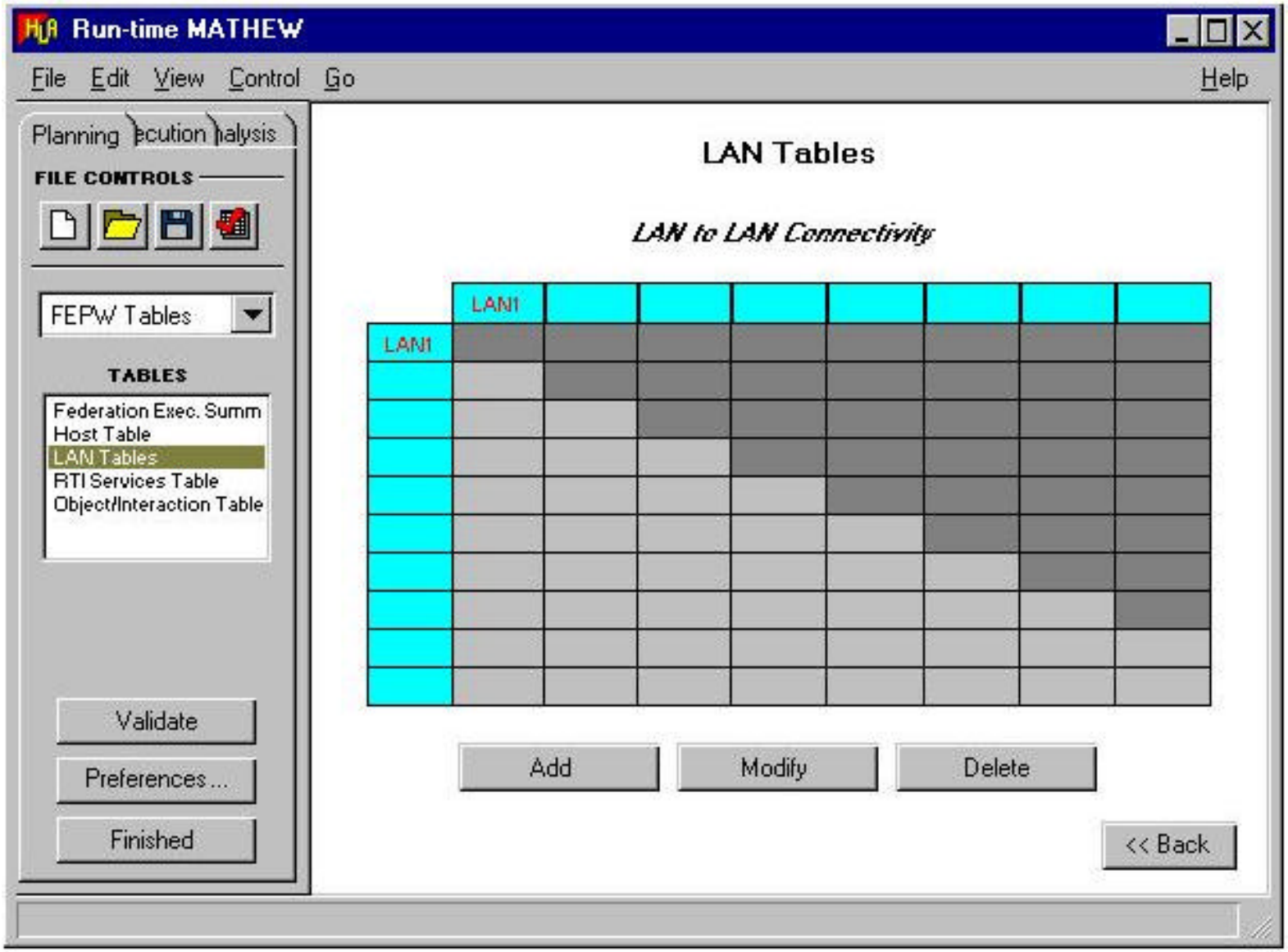
Provides information about bandwidth available and latencies introduced by network infrastructure

- Use:
  - describe each LAN in the federation execution
    - physical type
    - throughput available to FEDEX
  - describe LAN to LAN connectivity
    - type of device used to connect each LAN
    - effective throughput available to fedex for each device
    - latency introduced by device

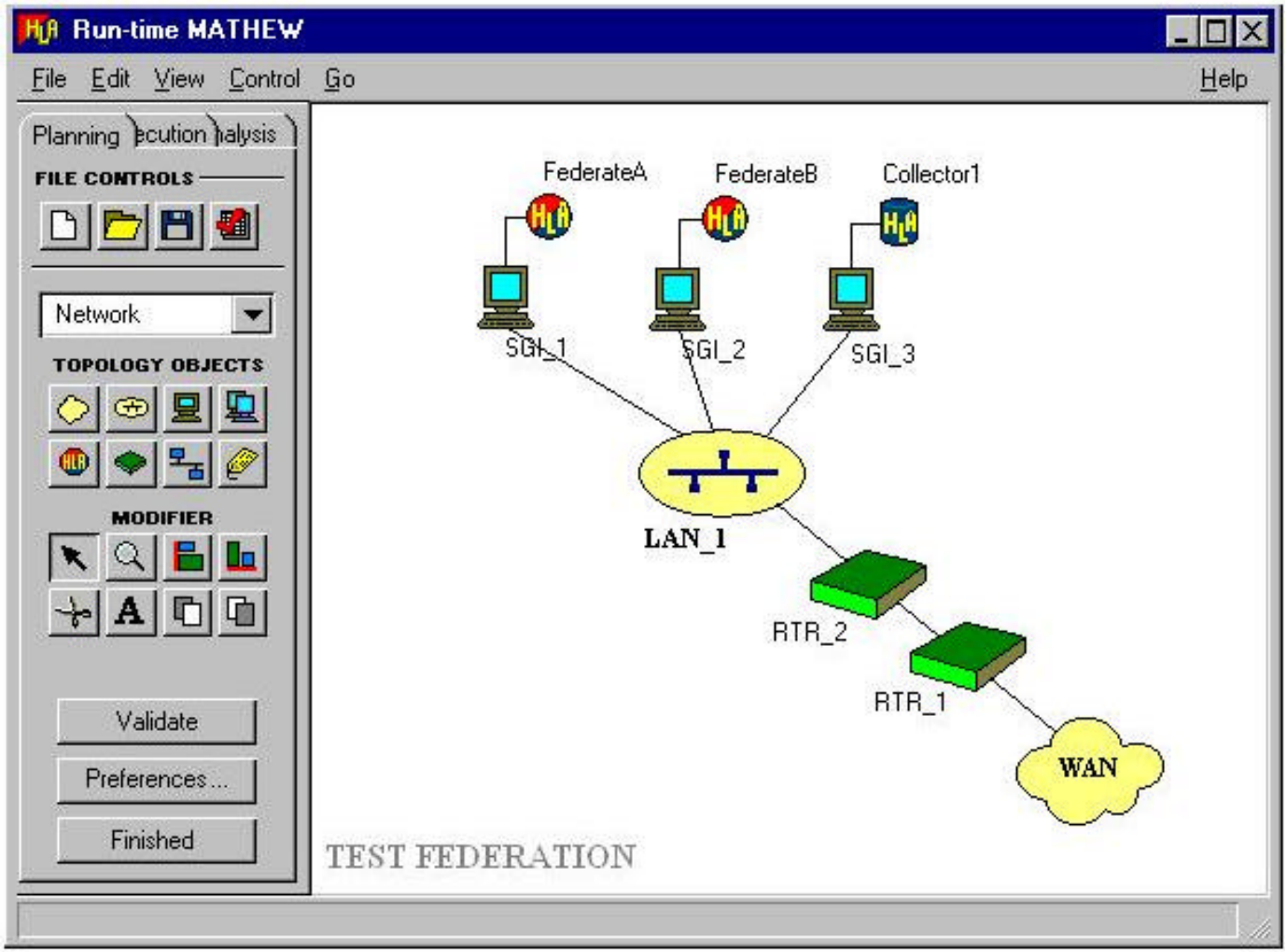
LAN Description GUI



LAN Connectivity GUI



Topological View GUI



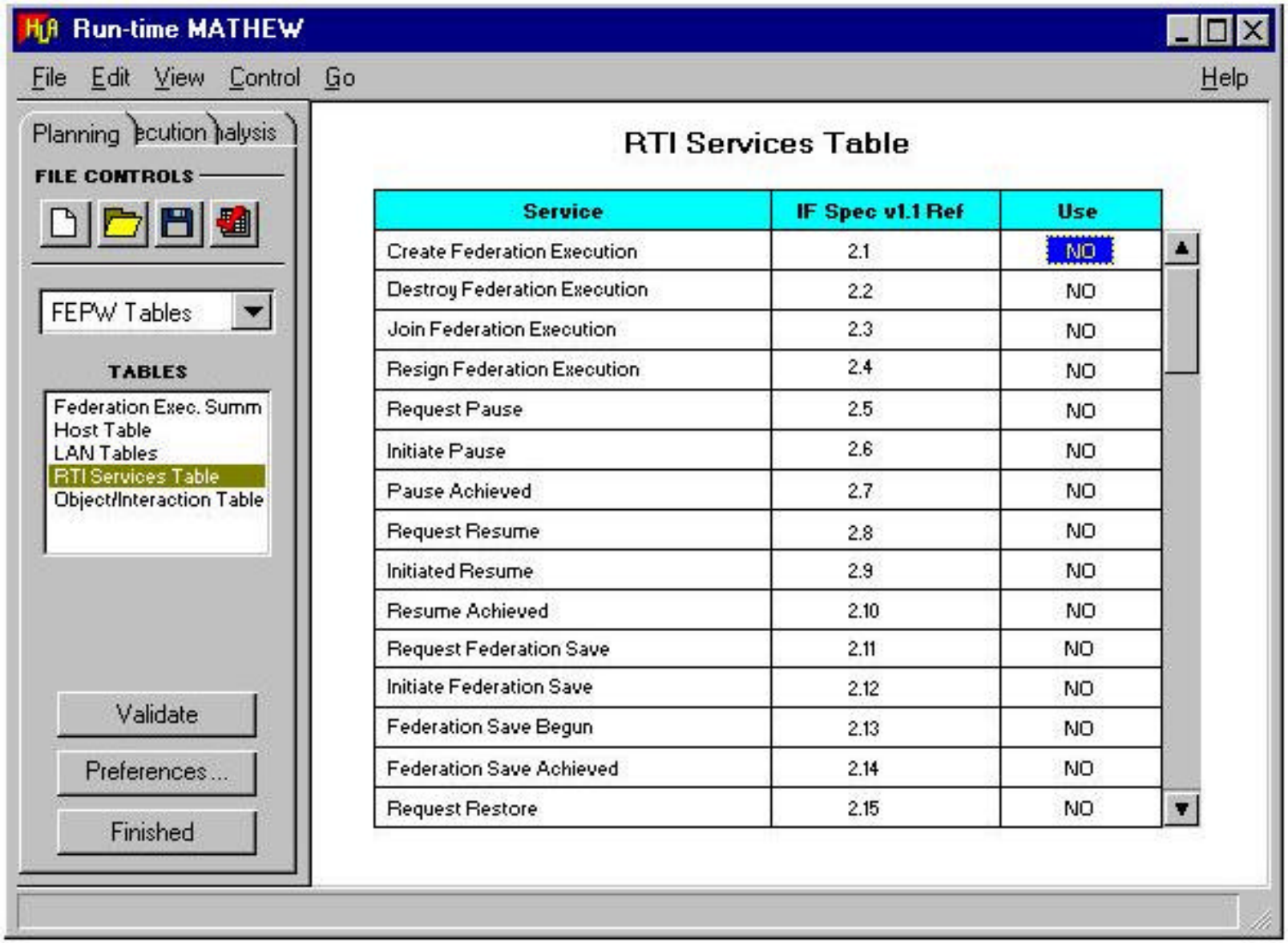
RTI Services Table

Lists the services a federate and federation execution uses.

Use: fill out table for each federate and a summary for federation execution

- specify whether each service is used at least once during the federation execution

RTI Service Table GUI

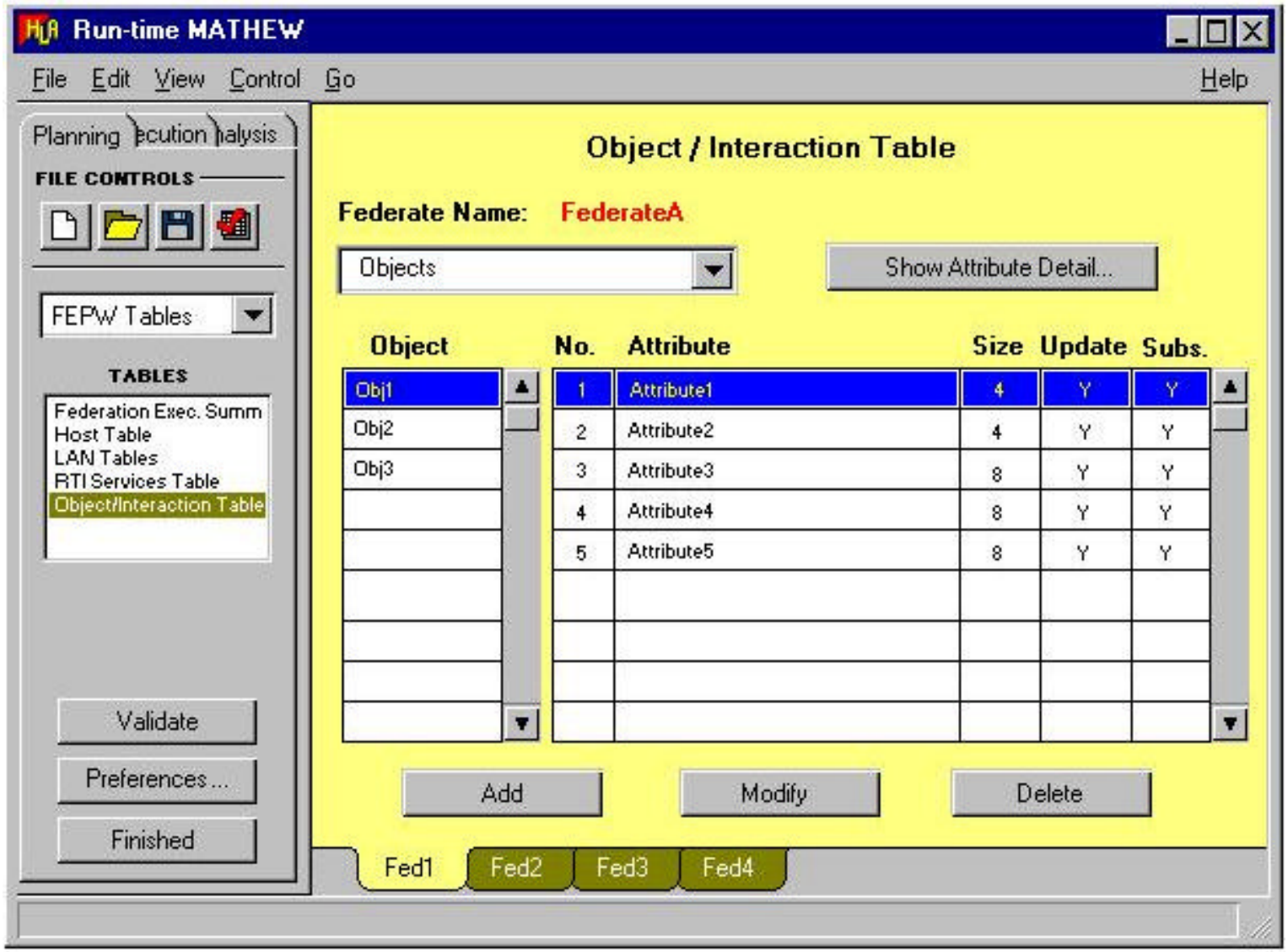


Object / Interaction Table

Specify run-time characteristics related to FOM data that affect interoperability and performance of federation execution

- Use: fill out table for each federate
  - objects
    - number simulated by federate
    - attribute sizes, nominal and maximum update rate, maximum tolerable latency, attribute transport and ordering, update groupings, ownership transfer groupings
    - interactions
    - interaction transport and ordering
    - parameter sizes, nominal and maximum update rate, maximum tolerable latency, send groupings

Object / Interaction Table GUI



Latency Measurement Definition

- Latency is measured at the RTI interface on each federate
  - RTI ambassador for updateAttributeValues
  - FederateAmbassador for reflectAttributeValues